

AMENDMENT TO THE CLAIMS

Listing of Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (currently amended) A method of operation of an access point for supporting a first plurality of devices operating on a first frequency band and second plurality of devices operating on a second frequency band, the method comprising:

providing communication in a first transition beacon interval at the second frequency band by:

initiating a first contention free period at the first frequency, wherein the first plurality of devices remain associated with the access point during the first contention free period,

switching from the first frequency to the second frequency,
communicating with devices operating at the second frequency including transmitting multicast data and receiving and transmitting distributed coordinated function data and acknowledgements; and

providing communication in each of a first plurality of beacon intervals following the first transition beacon interval at the second frequency band by:

temporarily ceasing the step of communicating with devices operating at the second frequency to initiate a second contention free period at the second frequency, wherein the second plurality of devices remain associated with the access point during the second contention free period,

switching from the second frequency to the first frequency,
initiating another contention free period at the first frequency,
switching from the first frequency back to the second frequency, and
communicating with devices operating at the second frequency including receiving and transmitting distributed coordinated function data and acknowledgements.

2. (canceled)

3. (canceled)

4. (currently amended) The method of claim 1 wherein initiating a first contention free period and initiating a second contention free period each comprise[[s]] transmitting a beacon message.

5. (previously presented) The method of claim 1 further comprising:
providing communication in a second transition beacon interval at the first frequency by:
initiating a contention free period at the second frequency;
switching from the second frequency to the first frequency;
communicating with devices operating at the first frequency including transmitting multicast data and receiving and transmitting distributed coordinated function data and acknowledgements; and
providing communication in each of a second plurality of beacon intervals following the second transition beacon interval at the first frequency band by:
temporarily ceasing the step of communicating with devices operating at the first frequency to initiate a contention free period at the first frequency,
switching from the first frequency to the second frequency,
initiating another contention free period at the second frequency,
switching from the second frequency back to the first frequency, and
communicating with devices operating at the first frequency including receiving and transmitting distributed coordinated function data and acknowledgements.

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (canceled)

12. (previously presented) The method of claim 1, further comprising, within the first transition beacon interval, initiating a distributed coordinated function mode prior to communicating with devices operating at the second frequency by the access point.

13. (previously presented) The method of claim 12, wherein initiating the distributed coordinated function mode allows devices operating at the second frequency to transmit inbound to the access point without having to be polled by the access point.

14. (previously presented) The method of claim 5, further comprising, during the second transition beacon interval, initiating a distributed coordinated function mode prior to communicating with devices operating at the first frequency by the access point.

15. (previously presented) The method of claim 14, wherein initiating the distributed coordinated function mode allows devices operating at the first frequency to transmit inbound to the access point without having to be polled by the access point.

16. (canceled)

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (new) The method of claim 5, wherein the access point and the plurality of communication device operate within an 802.11 system.

25. (previously presented) The method of claim 5, wherein initiating a contention free period comprises transmitting a beacon message.

26. (previously presented) The method of claim 1, wherein the initiating of the contention free period within the first transition beacon interval comprises signaling a contention free period beacon at the second frequency, the method further comprising:

delaying the signaling of the contention free period beacon based on a completion delay of a distributed coordinated function mode.

27. (previously presented) The method of claim 1, wherein the initiating of the contention free period within each of the first plurality of beacon intervals following the first transition beacon interval at the second frequency band comprises signaling a contention free period beacon at the second frequency, the method further comprising:

delaying the signaling of at least one of the contention free period beacons of one or more of the first plurality of beacon intervals based on a completion delay of a distributed coordinated function mode.

28. (currently amended) The method of claim 27, wherein each of the first plurality of beacon intervals is characterized by a beacon interval time, the method further comprising:

reducing a beacon interval time of the one or more of the first plurality of beacon intervals following a delayed beacon interval so that an average rate of the reduced beacon interval time ~~plus and~~ the delayed beacon interval time ~~equal an average~~ approaches the beacon interval time.

29. (previously presented) The method of claim 5, wherein the initiating of the contention free period within the second transition beacon interval comprises signaling a contention free period beacon at the first frequency, the method further comprising:

delaying the signaling of the contention free period beacon based on a completion delay of a distributed coordinated function mode.

30. (previously presented) The method of claim 5, wherein the initiating of the contention free period within each of the second plurality of beacon intervals following the second transition beacon interval at the first frequency band comprises signaling a contention free period beacon at the first frequency, the method further comprising:

delaying the signaling of at least one of the contention free period beacons of the second plurality of beacon intervals based on a completion delay of a distributed coordinated function mode.

31. (currently amended) The method of claim 30, wherein each of the second plurality of beacon intervals is characterized by a beacon interval time, the method further comprising:

reducing a beacon interval time of the one or more of the second plurality of beacon intervals following a delayed beacon interval so that an average rate of the reduced beacon interval time ~~plus and~~ the delayed beacon interval time ~~equal an average~~ approaches the beacon interval time.

32. (previously presented) The method of claim 4, further comprising:

receiving a contention free period beacon message by a communication device on the first frequency, wherein the communication device remains associated to the access point and does not initiate a distributed coordinated function mode in response to receiving the contention free period beacon message.

33. (previously presented) The method of claim 25, further comprising:

receiving a contention free period beacon message by a communication device on the second frequency, wherein the communication device remains associated to the access point and does not initiate a distributed coordinated function mode in response to receiving the contention free period beacon message.

34. (previously presented) The method of claim 5, further comprising at the beginning of each beacon interval:

operating each of the communication devices to:

awaken from a power-saving mode,

receive multicast data, and

return to power saving mode.

35. (previously presented) The method of claim 5, further comprising at the beginning of each beacon interval:

operating each of the communication devices to:

awaken from a power-saving mode,

receive multicast data,

switch operation to a distributed coordinated function mode, and

return to power saving mode.